REMARKS

Claims 1-36 are pending in the present application. Claims 1, 2, 4, 6, 13, 17-19, 21, 23, 25, 30, 34 and 35 have been amended, and Claims 3, 7, 20 and 24 have been cancelled, herewith. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 101

The Examiner rejected Claims 18-36 under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. This rejection is respectfully traversed.

With respect to Claims 18 (and dependent Claims 19 and 21-23) and 25 (and dependent Claims 26-34), Applicants have amended such claims to explicitly recited that the computer-readable medium is tangible, thus overcoming the Examiner's rejection that the claims could encompass non-tangible medium.

Notwithstanding the above amendment, Applicants respectfully submit that even if Claim 18 covers carrier waves and signal or transmission media, the Examiner is incorrect in the allegation that such waves and media are "intangible". The term "tangible" is not limited to elements that may be perceived only by the sense of touch. To the contrary, the term "tangible" refers to anything that is capable of being perceived, precisely defined or realized by the mind, or capable of being appraised at an actual or approximate value (see Merriam-Webster Online Dictionary Definition, a copy of which is attached hereto in the Appendix). In other words, something is "tangible" if it is possible to verify its existence. This does not require that the element be "touchable" but merely "perceivable". Carrier waves and signal or transmission media are clearly perceivable, able to be precisely identified or realized by the mind, and are capable of being appraised. Computer readable media, or computer usable media, must be inherently "perceivable", otherwise they would not be "computer readable" or "computer usable". In other words, carrier waves and signal or transmission media are measurable, readable, or usable by appropriate devices for measuring, reading or using such waves and media. Thus, they are "tangible" despite the allegations made by the Office Action. Since these types of media are "tangible", even if there were some requirement in the

MPEP that the media be "tangible", then the present claims would still meet this requirement, and thus be directed to statutory subject matter.

With respect to Claims 35 and 36, further clarification is requested as to the basis for rejecting such claims, as contrary to the Examiner's assertion, such claims do not recite an intangible medium, but instead recite a system.

Therefore, the rejection of Claims 18-36 under 35 U.S.C. § 101 has been overcome.

II. 35 U.S.C. § 102, Anticipation

The Examiner rejected Claims 1-36 under 35 U.S.C. § 102 as being anticipated by Nelson et al (hereinafter, "Nelson", 5,835,720). This rejection is respectfully traversed.

With respect to Claim 1, such claim has been amended to include features previously recited in Claim 3 (and Claim 3 is thus being cancelled herewith without prejudice or disclaimer). As amended, Claim 1 recites "maintaining a dynamically gathered record of devices which are compliant to at least one of a first discovery method and a second discovery method; and using an appropriate discovery method for a given device according to the dynamically gathered record, wherein a first device of the devices is accessed using the first discovery method and a second device of the devices is accessed using the second discovery method". As can be seen, a record of devices is maintained, and this record is dynamically gathered for devices compliant with a discovery method, where an appropriate discovery method is used for a given device according to this dynamically gathered record. This claimed feature advantageously provides an ability to dynamically determine an appropriate type of discovery method that should be used when accessing a given device. In rejecting Claim 3 (whose features are now a part of Claim 1), the Examiner cites Nelson col. 8, lines 32-40 as teaching the claimed maintaining step, and Nelson col. 8, lines 41-60 as teaching the claimed using step. Applicants show error in such assertion, as the passage cited at col. 8, lines 32-40 teaches the following:

> If ICMP echo request messages have been sent to the addresses of all subnets and networks in the hierarchical data structure (212), the Fast Ping method is completed. Otherwise, the network manager 40 keeps track of the IP addresses that have responded,

> the ones that have not responded, the number of ICMP echo request messages that have been sent to a particular address, and it accordingly sends the next batch of ICMP echo request messages (step 214).

As can be seen, this passage merely describes keeping track of IP addresses that have responded and not responded to an echo request message (IP ping), as well as the number of echo request messages that have been sent to a particular device. As to the passage cited at col. 8, lines 41-60, such passage teaches the following:

> The network manager 40 can use the Fast Ping method to perform a mini-sweep of the network. The network manager 40 sends out a batch of fifty ICMP echo request messages to the first fifty IP addresses of a subnet. Within a three second interval, five responses are queued by the network manager 40. IP addresses of the five responding devices are stored in the hierarchical data structure and network topology database 56. After three seconds elapse, the network manger 40 sends another batch of ICMP echo request messages to fifty IP addresses: the forty five addresses that did not respond, and the fifty first address through the fifty fifth addresses. Two more intervals of three second elapses and no additional responses are received. The network manager 40 then formulates a new batch of fifty addresses: the fifty first address to the fifty fifth address, and the fifty sixth address though the one hundred and fifth address. In this manner, the network manager 40 continues to send out batches of ICMP echo request messages until all addresses in the Hierarchy file have been pinged. The mini-sweep is faster to perform than the conventional method of pinging devices.

Importantly, this passage describes using a single type of discovery technique (ICMP echo request message, which is described at col. 1, lines 24-33 as being a 'ping').

While the cited reference does allude to being able to use a network manager for managing both SNMP devices and ICMP devices at col. 4, lines 18-36, the information gathered is not used in determining the *type of discovery method* that is to be subsequently used in another discovery operation. Instead, a user manually selects whether to do an ARP/Ping search, an ARP-only search, or a Ping search (col. 5, lines 22-32). Claim1 expressly recites "using an appropriate discovery method for a given device *according to the dynamically gathered record*, wherein a first device of the devices is accessed using the first discovery method and a second device of the devices is

accessed using the second discovery method. The cited reference does not teach this claimed feature, but instead teaches that the discovery method is user-specified. Restated, the order and use of the discovery methods as described by the cited reference are not conditioned upon what the system finds dynamically, but rather are set up a priori by a user and then remain invariant. Thus, it is urged that amended Claim 1 is not anticipated by the cited reference.

With respect to Claims 2 and 4-6, Applicants initially traverse for reasons given above with respect to Claim 1 (of which Claims 2 and 4-6 depend upon).

Further with respect to Claim 4, Applicants urge that the cited reference does not teach the claimed feature of "*altering the established order* according to a first number of devices compliant to the first discovery method and a second number of devices compliant to the second discovery method according to the record" (emphasis added). This claimed feature advantageously allows for *altering the established order according to the number of devices* that are compliant with each of the discovery methods, thus allowing for prioritizing the order of the discovery methods to be used (Specification page 7, lines 12-23). The cited reference provides no ability to dynamically prioritize the order of discovery methods, as the particular discovery method to be used is user-specified (col. 5, lines 22-32). In rejecting Claim 4, the Examiner cites Nelson col. 8, lines 41-60 as teaching this claimed feature. Applicants urge that this passage merely describes a mini-sweep technique using the Fast Ping method, where the network manager sends out batches of ICMP echo requests to determine which devices respond or do not respond to such requests, in order to speed up device detection from what resulted from previously known serial-ping techniques. This does not teach *changing an order of what type of discovery method to use*, as it teaches use of a single discovery method (ICMP echo request). Thus, it is respectfully urged that Claim 4 has been erroneously rejected under 35 USC 102, as every claimed element is not identically shown in a single reference.

Further with respect to Claim 6, Applicants have amended such claim to recite "modifying the established order of the alternative discovery methods based on network response time for at least some of the devices", as described at least at Specification page 6, lines 11-24. It is respectfully submitted that the cited reference merely describes a

manual user selection of what type of discovery method to use (Nelson col. 5, lines 22-32), and does not teach or otherwise suggest using feedback from a previous discovery to modify the order of discovery methods which can then advantageously be used in a subsequent discovery. Thus, it is urged that amended Claim 6 is not anticipated by the cited reference.

With respect to Claim 8, such claim recites "A method for discovering status of a network topology, comprising the steps of discovering a status for an existing network topology; determining a next discovery action based on an event; and determining, from a plurality of network access policies, a network access policy that is to be used when performing the next discovery action, *the network access policy determination being based on a network response time, wherein the network response time is further based on at least one of a previous status of the existing network topology and a discovery event*". As can be seen, a determination is made as to what network access policy is to be used when performing a next discovery action, and this determination is based on a network response time. For similar reasons to those given above with respect to Claim 6, the cited reference merely teaches a manual user selection of what type of discovery method to use. In rejecting Claim 8, the Examiner states that this determination is taught by Nelson at col. 8, lines 13-31. Applicants urge that this passage teaches a Fast Ping mode of operation, where a single discovery action (an ICMP echo request/ping) is used to determine which devices respond to such request/ping. This information is not used to *determine what type of discovery action to subsequently perform in a next discovery action*, as expressly recited in Claim 8. Thus, it is urged that Claim 8 has been erroneously rejected under 35 USC 102, as every element of the claimed invention is not identically shown in a single reference.

With respect to Claims 9-17, Applicants initially traverse for reasons given above with respect to Claim 8 (of which Claims 9-17 depend upon).

Further with respect to Claim 12, it is urged that the cited reference does not teach the claimed feature of "developing an order of relative capabilities for a managed device as compared to other device or devices in the network". As can be seen, an order of relative capabilities for a managed device is developed, thus further enhancing the network management capabilities of the present invention (Specification page 6, lines 20-

24). In rejecting Claim 12, the Examiner cites Nelson col. 8, lines 14-31 as teaching this claimed feature. Applicants urge that this passage merely describes the saving of an IP address of a responding device in a database. There is nothing mentioned as to any determination of relative capabilities of a device with respect to other devices, or developing an *order of relative capabilities* as compared to other devices in the network. It is thus urged that Claim 12 has been erroneously rejected under 35 USC 102, as every element of the claimed invention is not identically shown in a single reference.

Further with respect to Claim 13, it is urged that the cited reference does not teach the claimed feature of "wherein discovering a status for an existing network topology further includes employing a single device status gathering technique if a count of devices left to discover is less than a predetermined amount". As can be seen, a single device status gathering technique is used *if a count of devices* left to discover is less than a predetermined amount, which advantageously improves performance in the status discovery process. In rejecting Claim 13, the Examiner cites Nelson col. 7, lines 16-34 and lines 55-66 as teaching this claimed feature. Applicants urge that these passages describe classifying a given device in a database (col. 7, lines 16-34), and a Fast Ping Search which uses three parameters of (i) maximum number of outstanding echo request messages per batch, (ii) a time between transmissions of a given batch, and (iii) a number of times an echo request message is sent to a device (col. 7, lines 55-66). Neither of these passages describe any operation that is *conditioned upon the count of the number of devices left to discover*, and thus is necessarily follows that neither of these passages teaches reversion to a single device status gathering technique *if* a count of devices left to discover is less than a predetermined amount, as expressly recited in Claim 13. Applicants have amended Claim 13 to further clarify this distinction. Thus, it is urged that Claim13 is not anticipated by the cited reference, as every element of the claimed invention recited therein is not identically shown in a single reference.

Further with respect to Claim 15, it is urged that the cited reference does not teach the claimed feature of "wherein discovering a status for an existing network topology further includes employing a multiple device status gathering technique if a count of devices left to discover is more than a predetermined amount". As can be seen, multiple device status gathering techniques are employed *if a count of devices* left to discover is

more than a predetermined amount, which advantageously improves performance in the status discovery process. In rejecting Claim 15, the Examiner cites the identical Nelson passage that was cited in rejecting Claim 13. For similar reasons to those described above with respect to Claim 13, these cited passages do not make any type of conditional determination of *how many gathering techniques* to use based on the *count* of the number of devices left to discover. Thus, it is urged that Claim 15 is not anticipated by the cited reference, as every element of the claimed invention recited therein is not identically shown in a single reference.

Further with respect to Claim 17, it is urged that the cited reference does not teach the claimed feature of "wherein discovering a status for an existing network topology includes *determining a best order to discover the status* for the existing network topology" (emphasis added by Applicants). In rejecting Claim 17, the Examiner cites the identical Nelson passage that was cited in rejecting Claim 13. Applicants urge that these passages make no mention of any type of ordering for discovering a network topology status, and thus do not teach determining a best order for such status determination. Instead, a range of IP addresses within a subnet are used without regard to whether this is a best order for discovering network status (col. 8, lines 13-40; Figure 4). Applicants have amended Claim 17 to further clarify this distinction. Thus, it is urged that Claim 17 is not anticipated by the cited reference, as every element of the claimed invention recited therein is not identically shown in a single reference.

Applicants traverse the rejection of Claims 18 (and dependent Claims 19 and 21-23) and 35 for similar reasons to those given above with respect to Claim 1.

Applicants further traverse the rejection of Claim 21 for similar reasons to the further reasons given above with respect to Claim 4.

Applicants further traverse the rejection of Claim 23 for similar reasons to the further reasons given above with respect to Claim 6.

Applicants traverse the rejection of Claims 25 (and dependent Claims 26-34) and 36 for similar reasons to those given above with respect to Claim 8.

Applicants further traverse the rejection of Claim 29 for similar reasons to the further reasons given above with respect to Claim 12.

Applicants further traverse the rejection of Claim 30 for similar reasons to the further reasons given above with respect to Claim 13.

Applicants further traverse the rejection of Claim 32 for similar reasons to the further reasons given above with respect to Claim 15.

Applicants further traverse the rejection of Claim 34 for similar reasons to the further reasons given above with respect to Claim 17.

In conclusion, the teachings of the cited reference do not contemplate a dynamic determination of how to discovery devices on a network based on historical information learned in a previous discovery operation. Instead, it merely teaches that a user can manually specify what type of discovery technique to use. The claimed invention thus advantageously advances the state of the art by adapting discovery and monitoring methods in accordance with previously determined device or network characteristics. Therefore, the rejection of Claims 1-36 under 35 U.S.C. § 102 has been overcome.

III. Conclusion

It is respectfully urged that the subject application is patentable over the cited reference and is now in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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